



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/571,296

11/14/2006

Haruo Yamashita

2006\_0325A

6226

52349 7590 01/26/2010  
WENDEROTH, LIND & PONACK L.L.P.  
1030 15th Street, N.W.  
Suite 400 East  
Washington, DC 20005-1503

EXAMINER

LEIBY, CHRISTOPHER E

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

01/26/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/571,296	<b>Applicant(s)</b> YAMASHITA ET AL.	
	<b>Examiner</b> CHRISTOPHER E. LEIBY	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Detailed Action***

1. **Claims 9-25** are pending.

***Election/Restrictions***

2. Applicant's election without traverse of figure 40 in the reply filed on 10/16/2009 is acknowledged. Figure 40 is described in the specification to achieve the same functions as figure 7 therefor all claimed subject matter relating towards figures 40 and 7 will be examined.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 14-20** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The subject matter of claim 14 "... the value of the output signal is convex upward with respect to the value of the image signal ..." is deemed to be new matter since neither the entire specification or the elected species invention of figure 40 discloses any type of convex output signal.

The subject matter of claim 15 "...a difference/ratio between the processed signal and the image signal..." is deemed to be new matter since the specification only discloses a difference ratio between the luminance of the target pixel and of the surround pixels in which to adjust the luminance thereof. The specification or elected figure 40 do not disclose a difference ratio between a processed signal and the image signal.

The subject matter of claims 16 and 17 "...when the value of the image signal is fixed to a predetermined level..." is deemed to be new matter since neither the entire specification or the elected species invention of figure 40 discloses any type of fixed imaged signal.

The subject matter of claims 18 and 19 "...an outside parameter that is input from an outside portion ..." is deemed to be new matter since the elected species invention of figure 40 does not disclose any type of outside portion. It is noted that the specification discloses an outside portion in relation to summary of invention but there are no details in how the outside portion relates to the visual processing unit of figure 40. These claims should possibly be towards a non-elected invention.

The subject matter of claim 20 "...a time change adjustment unit ..." is deemed to be new matter since the elected species invention of figure 40 does not disclose any type of time change adjustment unit. It is noted that the specification discloses a time change adjustment unit in relation to summary of invention but there are no details in how the time change adjustment unit relates

to the visual processing unit of figure 40. This claim should possibly be towards a non-elected invention.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 9-13, 21-25** rejected under 35 U.S.C. 102(b) as being anticipated by Hansen (US Patent 6,069,597).

Regarding **independent claims 9, 21, and 23-25**, Hansen discloses a visual processing device/image display device, visual processing method (*abstract*), processor (*figure 8 reference 501*), and program (*wherein figure 9 discloses hardware a program is inherent to make the hardware work*) comprising:

a visual processing unit operable to determine a conversion characteristic for an image signal that has been input in accordance with information on surroundings obtained from a plurality of pixels surrounding a target pixel, convert the target pixel in accordance with the conversion characteristics and output an output signal generated by performing visual processing to the image signal (*figure 4 reference 300 wherein one shot circuit 325 determines the length/conversion characteristic for an image signal in accordance with the ambient light as shown in figure 9 wherein the brightness voltage signal is created by a comparison circuit outputted to the*

Art Unit: 2629

*brightness control circuitry, wherein the circuitry comprises PWM enable signals used to either control the brightness on length of the on time by the select rows or modify the display data through the data columns a selection of a modified row or column is a selection of a pixel and surrounding pixels);*

a display unit operable to display the output signal (*figure 3 reference 100 also shown as 125 in figure 2*); and

a parameter output unit operable to output an adjustment parameter based on a parameter expressing the ambient light (*figure 4, part of brightness circuitry shown in figure 9, reference 350 which outputs the parameter used to convert the pixel to an appropriate visual brightness, reference Row enable,*

wherein the visual processing unit outputs the output signal generated by adjusting the brightness and/or the local contrast of the image signal based on the contrast between an average signal value of a plurality of pixels surrounding the target pixel and the value of the target pixel (*column 8 lines 21-37 wherein an average brightness of a pixel and surrounding pixels is calculated and adjusted*), and corrects the degree of adjustment of the brightness and/or the local contrast of the image signal based on the adjustment parameter (*figure 9 reference wherein ambient light is inputted to brightness circuitry and used to modify/correct either row and column timings to adjust brightness*).

Regarding **independent claim 10**, Hansen discloses a visual processing device comprising:

a spatial processing unit operable to perform a predetermined spatial processing to an image signal that has been input, by using pixels surrounding a

Art Unit: 2629

target pixel, and output a processed signal (*figure 4 wherein line 214 is for inputting a row clock signal used for a pixel and surrounding pixels, processed by one shot circuit 325 and converted/adjusted to a corresponding brightness average to the corresponding row/surrounding pixels and pixel, figure 9 reference 240 wherein the brightness signal adjusts a column/data/image signal of the pixel*);

a visual processing unit operable to receive the image signal and the processed signal as input, and output an output signal generated by performing visual processing to the image signal (*figure 9 reference 300 and figure 3 reference column driver wherein 300 receives brightness voltage signal which is processed into an image signal by column driver 240*); and

a parameter output unit operable to output an adjustment parameter based on a parameter expressing the ambient light (*figure 9 reference sensor 580 which outputs a parameter of ambient light 585*),

wherein the visual processing unit outputs the output signal generated by adjusting the brightness and/or the local contrast of the image signal based on the contrast between the processed signal and the image signal, and corrects the degree of adjustment of the brightness and/or the local contrast of the image signal based on the adjustment parameter (*figure 9 reference wherein ambient light is inputted to brightness circuitry and used to modify/correct either row and column timings to adjust brightness*).

Regarding **claim 11**, Hansen discloses a visual processing device according, wherein the visual processing unit has a processing characteristic that within a predetermined input range, when the value of the image signal is fixed to

a predetermined level, the value of the output signal monotonically decreases with respect to the value of the processed signal (*figure 9 reference manual adjust which is compared with ambient signal wherein the manual adjust is a fixed level that if the brightness adjustment normal made is above this level a decrease in the signal occurs to compensate*), outputs an output signal generated by adjusting the brightness and/or the local contrast of the image signal based on the contrast between the processed signal and the image signal, and corrects the degree of adjustment of the brightness and/or the local contrast of the image signal based on the adjustment parameter (*figure 9 reference wherein ambient light is inputted to brightness circuitry and used to modify/correct either row and column timings to adjust brightness*).

Regarding **claim 12**, Hansen discloses a The visual processing device, wherein the visual processing unit outputs an output signal generated by enhancing the brightness of the image signal based on the contrast between the processed signal and the image signal (*figure 9 reference 300 and 240 wherein a brightness signal converted to be applied to the column driver adjusts the pixel brightness image signal to be output by the column driver*), and increases the degree of enhancement of the brightness of the image signal as the brightness of the ambient light becomes high based on the adjustment parameter (*figure 9 reference ambient light (brightness control circuit 300 outputs a PWM signal in respect to the ambient light signal 585 and brightness voltage signal 312)*).

Regarding **claim 13**, Hansen discloses a The visual processing device, wherein the visual processing unit has a processing characteristic that within a predetermined input range, when the value of the image signal is fixed to a



predetermined level, the value of the output signal monotonically decreases with respect to the value of the processed signal (*figure 9 reference manual adjust which is compared with ambient signal wherein the manual adjust is a fixed level that if the brightness adjustment normal made is above this level a decrease in the signal occurs to compensate*), outputs an output signal generated by enhancing the brightness of the image signal based on the contrast between the processed signal and the image signal, and increases the degree of enhancement of the brightness of the image signal as the brightness of the ambient light becomes high based on the adjustment parameter (*figure 9 reference wherein ambient light is inputted to brightness circuitry and used to modify/correct either row and column timings to adjust brightness*).

Regarding **claim 22**, Hansen discloses an image display device, wherein the parameter output unit comprises a brightness detection unit operable to detect the brightness of the display environment of the display unit, and output the adjustment parameter in accordance with the brightness of the display environment detected by the brightness detection unit (*figure 9 reference ambient light sensor*).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER E. LEIBY whose telephone number is (571)270-3142. The examiner can normally be reached on 9 - 5 Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on 571-272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CL

January 5<sup>th</sup>, 2010

Application/Control Number: 10/571,296

Page 10

Art Unit: 2629

/Henry N Tran/

Primary Examiner, Art Unit 2629